



MARYLAND DEPARTMENT OF NATURAL RESOURCES
FISHING AND BOATING SERVICES
AQUACULTURE AND INDUSTRY ENHANCEMENT DIVISION

HARVESTER EDUCATION TRAINING GUIDE

The National Shellfish Sanitation Program guidelines require education training programs for all shellfish harvesters and certified dealers. Maryland's training program is required for all Shellfish Aquaculture Harvester Permit and Registration Card holders once every five years. Completion of training is a prerequisite for issuance and/or renewal of Shellfish Aquaculture Harvester Permit and Registration Cards. The intent is to increase the awareness of safe harvesting practices, temperature control and food handling practices for shellfish to minimize growth of *Vibrio* bacteria. **The department intends to offer an in-person training session in the future, but currently each individual who would like to receive a Shellfish Aquaculture Harvester Permit or Registration Card in 2023, and has not already done so, must read and review the attached information and sign a form acknowledging that the information has been reviewed.**

Introduction:

- Shellfish require strict regulation because they are capable of growing in restricted and/or prohibited waters, they filter water and can concentrate pollutants and harmful organisms and they are often consumed raw.
- *Vibrio* are naturally occurring bacteria that can multiply in numbers quickly during warm weather. Shellfish can concentrate *Vibrio* as they feed and if the shellfish are eaten raw these bacteria can make your customers very sick.
- The risk of *Vibrio* illness can be greatly reduced through appropriate harvesting, handling, and transportation of oysters intended for raw consumption.
- This document outlines practices used to minimize the growth of *Vibrio* bacteria and follows the shellfish product through harvesting, handling, transportation, and market.

Harvesting:

- Location is one of the most important things a harvester controls. The Maryland Department of the Environment lists **Approved, Restricted, Conditionally Approved, and Prohibited Areas** (subject to change).
- Most leases are located in approved waters and harvest from those in restricted water should follow the strict guidelines and protocols for shellfish relay.
- Harvesters can view water classifications here:
mde.maryland.gov/programs/Marylander/fishandshellfish/Pages/index.aspx

Tagging:

- Harvested shellfish must be tagged with required information. The 4 W's on the Farm-Raised shellfish tags provide us with **who** harvested the product, **when** it was harvested, **where** it was harvested and **what** type of shellfish was harvested.
- Information on the tag is used to track shellfish from harvest area to the final consumer in the case of illness.
- A copy of the Farm Raised Tag Fact Sheet can be found online here:
dnr.maryland.gov/fisheries/Documents/Farm_Raised_FactSheet.pdf

Summer Harvest:

- Maryland's *Vibrio parahaemolyticus* (V.p.) Control Plan requires leaseholders engaged in the summertime harvest of shellfish to implement certain control measures.

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- These regulations require harvesters to protect oysters from direct sun by providing shade, maintain air flow to the area where the oysters are stored, designate a single landing location in Maryland, document the harvest start time on the tag or harvest trip record and deliver harvested oysters by the summertime curfews. See below for curfew times.

Handling:

- All harvest vessels must be registered, properly constructed, have decks that prevent shellfish from contacting bilge water or other contaminants like fuel or hydraulic oil, and have shading to protect product from the sun and have United States Coast Guard approved safety equipment. No animals are permitted to be on board the harvest vessel at any time while conducting aquaculture activities.
- Discharge of human waste is not allowed since it can lead to the contamination of the shellfish in the harvest area. Each vessel must be equipped with a human waste container. A bucket with a tight fitting lid and labeled “Human Waste” is an example of an approved waste container.
- Harvest Times: Oysters must be harvested, landed, offloaded, in the possession of a certified dealer and under refrigeration by the curfew times listed below in order to limit *Vibrio* bacteria growth in the summertime.

June 1 - June 30	11:30 a.m.
July 1 – Aug. 31	10:30 a.m.
Sept. 1 - Sept. 30	12:30 p.m.

Transportation:

- Harvested shellfish should be shaded on the **harvest vessel** and **throughout transportation and handling** whenever possible and delivered to a certified shellfish dealer and placed under mechanical refrigeration to protect the product.
- Bacteria, such as *Vibrio*, are in shellfish harvested from open waters. When oysters are left too long in warm temperatures, bacteria levels increase and could cause harm to consumers.
- Minimizing exposure of shellfish to heat and weather and selecting a Maryland Department of Health certified dealer with a record of proper shellfish handling, transportation, and storage can protect you and your product to ensure safe shellfish.

Selling:

- A shellfish dealer has to be licensed by both the Maryland Department of Natural Resources and the Maryland Department of Health in order to buy and/or sell shellfish for human consumption.
- A shellfish aquaculture harvester who does not have BOTH of these licenses can ONLY sell to a seafood dealer with a Maryland Department of Natural Resources Seafood Dealer’s License and a Maryland Department of Health Shellfish Certification.
- Information on the legal sale of oysters and the Buying and Selling Fact Sheet can be found here: dnr.maryland.gov/fisheries/pages/aquaculture/sale.aspx
- To apply for a Maryland Department of Health Shellfish Certification or to get more information, please contact the Center for Food Processing at: 410-767-8400.

Enforcement:

- The Natural Resources Police enforce all of the laws and regulations of the state as they pertain to the harvest of shellfish.
- For general information please contact (410) 260-8880.
- For emergencies please contact (410) 260-8888.